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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/717,083	11/22/2000	Kenneth P. Fishkin	106695.01	5446
7590	07/26/2005		EXAMINER NGUYEN, LE V	
Oliff & Berridge PLC P O Box 19928 Alexandria, VA 22320			ART UNIT 2174	PAPER NUMBER

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/717,083

Applicant(s)

FISHKIN ET AL.

Examiner

Le Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-13 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-13 and 21-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This communication is responsive to an amendment filed 12/9/04.
2. Claims 9-13 and 21-26 are pending in this application; and claims 21, 24 and 25 are independent claims. Claims 1-8 and 14-20 have been cancelled; and claims 21, 24 and 25 have been amended.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

5. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Randell et al. ("Randell") over Zhai et al. ("Zhai"), and further in view of Waldman.

As per claim 21, Randell teaches a method for inputting information, the method comprising manipulating a deformable piece of material connected to a hand-held computing device to provide a first electro-physical input to the device, the first morpheme input normally triggering a first default action by the device (col. 7, lines 21-37; col. 11, lines 24-36; col. 12, lines 1-4; col. 8, lines 25-29), and asynchronously manipulating the deformable piece to provide a second electro-physical morpheme input to the device without using keystrokes, with the second morpheme input converting the normally triggered first default action to a second action by the device, the second action based on the first default action (col. 7, lines 21-37; col. 11, lines 24-36; col. 12, lines 1-4; col. 8, lines 25-29; *described is a deformable piece such as the*

*controlled device or a mouse input that triggers a first action such as a first click and a second action triggered by a combination of the first click and a second successive click*). Randell does not explicitly disclose deforming the deformable piece without pushing buttons. Zhai teaches a method for inputting information, the method comprising deforming a deformable piece without pushing buttons to trigger actions by the device (Abstract). Therefore, it would have been obvious to an artisan at the time of the invention to include Zhai's teaching of deforming a deformable piece without pushing buttons in a method for inputting information to Randell's teaching of manipulating a deformable piece in a method for inputting information in order to provide users with an input device that makes use of all parts of the associated limb according to their respective advantages so that users may communicate with the computer regardless of the position of the device within the user's fingers.

However, Randell and Zhai still do not explicitly disclose the deformable piece applied to a surface of a device having a CPU. Waldman teaches a deformable piece applied to a surface of a device having a CPU with the second input converting a normally triggered first default action to a second action by the device, the second action based on the first default action (figs. 2-4 and 8; col. 1, lines 47-50; col. 5, lines 56-59; col. 11, lines 45-53; col. 14 line 25 through col. 15, line 22; *the second action is based on the first default action, since the second action alone will not trigger the first default action*). Therefore, it would have been obvious to an artisan at the time of the invention to include Waldman's teaching of a deformable piece applied to a surface of a device having a CPU to Randell and Zhai's teaching of a deformable piece integrally

connected to a device having a CPU in order to provide users with an additional implement preference in peripheral input devices.

As per claim 22, the modified Randell teaches a method for inputting information, the method wherein at least one of the first morpheme and the second morpheme inputs to the device is based on orienting the deformable piece relative to an external environment object (Zhai: figs. 1 and 7; col. 6, lines 36-58; *rotatable and having six degree-of-freedom with many way to relate motion of the input device 20 to that of an object to be manipulated as expounded in col. 6*).

As per claim 23, the modified Randell teaches a method for inputting information, the method wherein deforming the deformable piece further comprises at least one of twisting, stretching, bending, ripping, pinching, and perforating the deformable piece (figs. 1, 6 and 8; col. 6, lines 36-58; *pinching as in to squeeze between the thumb and finger*).

6. Claims 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Randell et al. ("Randell") over Zhai et al. ("Zhai") over Waldman and further in view of Wambach.

As per claim 24, although Randell teaches a method for inputting information, the method comprising adjusting/orienting a deformable piece of a hand-held computing device to provide a first electro-physical morpheme to the device and triggering a first default action by the device in response to adjusting/orienting the deformable piece (col. 7, lines 21-37; col. 11, lines 24-36; col. 12, lines 1-4; col. 8, lines 25-29; *squeezing or moving the deformable piece to provide a first electro-physical morpheme to the device*

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*and triggering a first default action*), Randell does not explicitly disclose orienting a deformable piece of a hand-held computing device, relative to an external environmental object. Zhai teaches a method for inputting information comprising orienting a deformable piece relative to an external environmental object (figs. 1 and 7; col. 6, lines 36-58; *rotatable*). Therefore, it would have been obvious to an artisan at the time of the invention to include Zhai's teaching of deforming a deformable piece without pushing buttons in a method for inputting information to Randell's teaching of manipulating a deformable piece in a method for inputting information in order to provide users with an input device that makes use of all parts of the associated limb according to their respective advantages so that users may communicate with the computer regardless of the position of the device within the user's fingers.

However, Randell and Zhai still do not explicitly disclose the deformable piece applied to a surface of a device having a CPU. Waldman teaches a deformable piece applied to a surface of a device having a CPU (figs. 2-4 and 8; col. 1, lines 47-50; col. 5, lines 56-59; col. 11, lines 45-53; col. 14 line 25 through col. 15, line 22). Therefore, it would have been obvious to an artisan at the time of the invention to include Waldman's teaching of a deformable piece applied to a surface of a device having a CPU to Randell and Zhai's teaching of a deformable piece integrally connected to a device having a CPU in order to provide users with an additional implement preference in peripheral input devices.

Randell, Zhai and Waldman still do not explicitly disclose triggering a first default action by the device, in response only to the orienting. Wambach teaches a method for

inputting information, the method comprising triggering a first default action by the device, in response only to the orienting (Abstract; *e.g. an action is triggered in response to a lateral movement by the device*). Therefore, it would have been obvious to an artisan at the time of the invention to include Wambach's teaching of a method for inputting information, the method comprising triggering a first default action by the device in response only to the orienting to Randell, Zhai and Waldman's teaching of a method for inputting information, the method comprising triggering a first default action by the device in order to provide users with a gesture-based input device as an implementation preference.

7. Claims 9-11, 13, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Randell et al. ("Randell") over Zhai et al. ("Zhai"), and further in view of Waldman.

As per claim 25, although Randell teaches a method for inputting information, the method comprising manipulating a deformable piece of material connected to a hand-held computing device to provide a first electro-physical input to the device, the first morpheme input normally triggering a first default action by the device (col. 7, lines 21-37; col. 11, lines 24-36; col. 12, lines 1-4; col. 8, lines 25-29), and asynchronously manipulating the deformable piece to provide a second electro-physical morpheme input to the device, with the second morpheme input converting the normally triggered first default action to a second action by the device, the second action based on the first default action (col. 7, lines 21-37; col. 11, lines 24-36; col. 12, lines 1-4; col. 8, lines 25-29; *described is a deformable piece such as the controlled device or a mouse input that*

*triggers a first action, e.g. inherently a mouse's "click"/first morpheme input triggers a first action, while a second or "double click"/second morpheme input triggers second action that modifies the first action, by definition that of activating a program or program feature*). Randal does not explicitly disclose the deformable piece of material being applied to the surface of the device. Zhai teaches a method for inputting information comprising manipulating a deformable piece of material applied to a surface of a device (figs. 3-6; col. 5, lines 32-40; col. 6, lines 28-34). Therefore, it would have been obvious to an artisan at the time of the invention to include Zhai's teaching of manipulating a deformable piece of material applied to a surface of a device in a method for inputting information to Randell's teaching of manipulating a deformable piece of material connected to a hand-held computing device in a method for inputting information in order to provide users with an implementation preference in input devices that makes use of all parts of the associated limb according to their respective advantages so that users may communicate with the computer regardless of the position of the device within the user's fingers.

However, Randell and Zhai still do not explicitly disclose the deformable piece applied to a surface of a device having a CPU. Waldman teaches a deformable piece applied to a surface of a device having a CPU with the second input converting a normally triggered first default action to a second action by the device, the second action based on the first default action (figs. 2-4 and 8; col. 1, lines 47-50; col. 5, lines 56-59; col. 11, lines 45-53; col. 14 line 25 through col. 15, line 22). Therefore, it would have been obvious to an artisan at the time of the invention to include Waldman's



teaching of a deformable piece applied to a surface of a device having a CPU to Randell and Zhai's teaching of a deformable piece integrally connected to a device having a CPU in order to provide users with an additional implement preference in peripheral input devices.

As per claim 26, the modified Randell teaches a method for inputting information wherein the deformable piece of material substantially surrounds the hand-held computing device (Zhai: figs. 3-6; col. 5, lines 32-40; col. 6, lines 28-34).

As per claims 9-11 and 13, the modified Randell teaches a method for inputting information to a device connected to a deformable piece wherein at least one of the first and second morpheme inputs to the device is based on detected light variations, thermal variations, electromagnetic variations and acoustic variations (Randell: col. 7, line 27 *light sensitive receptors/light variations*; col. 8, lines 42-47 *heat source/thermal variations*; col. 9, lines 16-25 *broadcasting signals/electromagnetic variations*; col. 12, lines 2-5 *microphone/acoustic variations*).

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Randell et al. ("Randell") in view of Zhai et al. ("Zhai"), and further in view of Waldman.

As per claim 12, although the modified Randell teaches a method for inputting information to a device connected to a deformable piece wherein at least one of the first and second morpheme inputs to the device is based on detected pressure variations (Randell: col. 7, lines 25-28; col. 11, lines 25-26; *pressure receptors for receiving user input*), the modified Randell and Paker does not explicitly disclose a method for inputting information to a device connected to a deformable piece wherein at least one

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of the first and second morpheme inputs to the device is based on detected vibration variations. Official Notice is given that a method for inputting information to a device connected to a deformable piece wherein at least one of the first and second morpheme inputs to the device is based on detected vibration variations is well known in the art. Therefore, it would have been obvious to an artisan at the time of the invention to include detection of vibration variations to the modified Randell's detection of pressure variations as an implementation preference.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 21, 24 and 25 have been considered but are moot in view of the new ground(s) of rejection, except for the following:

Randell, Zhai and Waldman do not disclose or suggest a second morpheme input converting the normally triggered first default action to a second action, the second action based on the first default action as recited in claims 21 and 25.

The examiner disagrees for the following reasons:

Randell teaches that the second action is based on the first default action, since the second action relies on the first default action then a subsequent second action to execute, i.e. the second action alone will not trigger the first default action (col. 7, lines 21-37; col. 11, lines 24-36; col. 12, lines 1-4; col. 8, lines 25-29; *described is a deformable piece such as the controlled device or a mouse input that triggers a first action such as a first click and a second action triggered by a combination of the first*

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*click and a second successive click*). Moreover, Waldman also teaches that the second action is based on the first default action, since the second action relies on the first default action then a subsequent second action to execute (figs. 2-4 and 8; col. 1, lines 47-50; col. 5, lines 56-59; *pressing the input device a second time in succession accomplish a result different from that of a single press*).

### **Conclusion**

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ahdoot (US 5,913,727) teaches an interactive movement and contact simulation game.

Capper et al. (US 5,521,616) teaches a control interface apparatus.

Rifkin (US 5,692,956) teaches combination computer mouse and game play control.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Inquires***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lê Nguyen whose telephone number is **(571) 272-4068**. The examiner can normally be reached on Monday - Friday from 7:00 am to 3:30 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid, can be reached on (703) 308-0640.

The fax numbers for the organization where this application or proceeding is assigned are as follows:

(703) 872-9306 [Official Communication]

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

LVN  
Patent Examiner  
July 21, 2005

*Kristine Kincaid*  
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